

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application : **09/804,003**
Applicant(s) : **WEISHUT et al.**
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Examiner : **YIMAN, Harun M.**
Atty. Docket : **NL-000147**

Title: **METHOD AND APPARATUS FOR RATING DATABASE OBJECTS**

Mail Stop: **APPEAL BRIEF - PATENTS**
Commissioner for Patents
Alexandria, VA 22313-1450

APPEAL UNDER 37 CFR 41.37

Sir:

This is an appeal from the decision of the Examiner dated 5 January 2007, finally rejecting claims 1-20 of the subject application.

This paper includes (each beginning on a separate sheet):

- 1. Appeal Brief;**
- 2. Claims Appendix;**
- 3. Evidence Appendix; and**
- 4. Related Proceedings Appendix.**

APPEAL BRIEF

I. REAL PARTY IN INTEREST

The above-identified application is assigned, in its entirety, to **Koninklijke Philips Electronics N. V.**

II. RELATED APPEALS AND INTERFERENCES

Appellant is not aware of any co-pending appeal or interference that will directly affect, or be directly affected by, or have any bearing on, the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-20 are pending in the application.

Claims 1-20 stand rejected by the Examiner under 35 U.S.C. 103(a).

These rejected claims are the subject of this appeal.

IV. STATUS OF AMENDMENTS

No amendments were filed subsequent to the final rejection in the Office Action dated 5 January 2007. A reply to the final rejection was filed on 26 February 2007.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The invention addresses a method of rating database objects, such as broadcast programs in an electronic program guide database. A user profile associates ratings to main, top-level genres, such as "News", "Sports", "Series", and to lower-level subgenres, such as the type of "Sport", the type of "Series", and so on (Applicants' FIG. 2, and page 5, lines 1-12). In a preferred embodiment, the rating of each top-level genre is determined as a composite, such as an average, of the ratings of the lower-level subgenres within the genre (page 6, lines 3-7). Optionally, the user can assign a rating to the genre, and this rating will be distributed to each of the sub-genres as an initial value, such that the composite of these lower-level subgenres provides the assigned rating of the genre (page 6, lines 8-12). If the user assigns ratings to the genre after assigning ratings to the subgenres, the system distributes the genre rating so as to maintain the relative differences among the subgenres, while also assuring that the composite of these lower-level subgenres provides the assigned rating of the genre (page 6, lines 13-15). In an example embodiment, these assigned and computed user ratings are used to display programs in an electronic program guide using colors corresponding to a determined rating for each program (FIG. 3; page 6, lines 22-30).

Independent claim 1 recites a method of rating database objects (FIG. 2), comprising:

- categorizing the objects into a plurality of categories (page 1, lines 2-4);
- rating (25a-25e of FIG. 2) at least one of said categories based on user preferences (page 5, lines 25-32);

- arranging the categories in accordance with a multi-level category scheme with a first level of categories (21) and a second level of categories (22) subordinate to a respective category of the first level (page 2, lines 1-5); and

- computing a rating of a category of the first level (21) as a function of ratings of subordinate categories (22) of the second level (page 6, lines 1-15).

Independent claim 7 recites an apparatus (FIG. 1) for processing database objects, said objects being categorized into a plurality of categories (FIG. 2), the apparatus comprising:

user profile means (11) for rating at least one of said categories based on user preferences (page 5, lines 25-32), wherein

the user profile means (11) are further adapted to:

arrange said categories in accordance with a multi-level category scheme with a first level of categories (21) and a second level of categories (22) subordinate to a respective category of the first level (page 2, lines 1-5), and

compute a rating of a category of the first level (21) as a function of ratings of subordinate categories (22) of the second level (page 6, lines 1-15).

Independent claim 14 recites an apparatus (FIG. 1), comprising:

a central processing unit (CPU) (8) adapted to process a plurality of database objects, wherein the objects are categorized into a plurality of categories (page 1, lines 2-4);

a user profile module (11) adapted to rate at least one of the plurality of categories based on user preferences (page 5, lines 25-32), wherein

the user profile module (11) is adapted to:

arrange the plurality of categories in accordance with a multi-level category scheme with a first level of categories (21) and a second level of categories (22) subordinate to a respective category of the first level (page 2, lines 1-5), and

compute a rating of each of the plurality of categories of the first level (21) as a function of ratings of plurality of categories of the respective second level (22) (page 6, lines 1-5).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-2, 6-8, 12-15, and 19 stand rejected under 35 U.S.C. 103(a) over Sciammarella et al. (USP 6,608,633, hereinafter Sciammarella) and Ali (USPA 2002/0199194).

Claims 3-5, 9-11, 16-18, and 20 stand rejected under 35 U.S.C. 103(a) over Sciammarella, Ali, and Lemmons (USP 6,481,011).

VII. ARGUMENT

Claims 1-2, 6-8, 12-15, and 19 stand rejected under 35 U.S.C. 103(a) over Sciammarella and Ali

MPEP 2142 states:

"To establish a *prima facie* case of obviousness ... the prior art reference (or references when combined) ***must teach or suggest all the claim limitations***... If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness."

Claims 1, 2, 6, and 13

Claim 1, upon which claims 2-6 and 13 depend, claims a method that includes computing a rating of a category of a first level as a function of ratings of subordinate categories of a second level.

Neither Sciammarella nor Ali teaches or suggests computing a rating of a category as a function of ratings of subordinate categories.

The Examiner acknowledges that Sciammarella does not teach computing a rating of a category as a function of ratings of subordinate categories, and asserts that Ali provides this teaching at paragraph 0036, lines 1-7. The applicants respectfully disagree with this assertion. At the cited paragraph, Ali teaches:

"As previously described, the user teaches the system his or her preferences by assigning overall ratings to programs they are familiar with, and rating individual program elements, such as actors and genres. Subsequently, the preferences are fed to one or more predictive algorithms to assign ratings to programs that predict the likelihood of the user liking them. The preferred embodiment of the invention includes a collaborative filtering algorithm and a content-based adaptive modeling algorithm." (Ali, [0036])

As is evident, at the cited paragraph, Ali does not address computing a rating of a higher level category as a function of the ratings of subordinate categories. At the cited paragraph, there is no reference to multiple category levels, no reference to subordinate categories, and no reference to computing a rating of a category.

At the cited paragraph, Ali addresses determining a rating of a program, and not a rating of a category. Ali's example of actors and genres are ratings associated with different categories (Ali [0033]), not subordinate categories, and the determined rating is a composite of the ratings of all of the categories associated with a given program, and not a rating of a particular category based on the ratings of its subordinate categories, as specifically taught and claimed by the applicants.

The Examiner also asserts that Ali's FIG. 5 inherently shows that the displayed category is an average of the sub-categories. The applicants respectfully disagree with this assertion, and specifically note that this assertion is contrary to Ali's specific teachings.

Ali specifically teaches that the user assigns ratings to both the categories and the sub-categories. Ali does not teach that a category's rating is based on the ratings of the sub-categories within that category:

"As FIGS. 4 and 5 show, selecting the 'teach category' option 31, navigates the user to a 'teach category' screen 40 and subsequently to a 'teach sub-categories' screen 50. Selecting any one of the displayed categories **or** sub-categories allows the user to assign 'thumbs' ratings to the selected categories" (Ali, [0031], lines 24-29).

There is no suggestion in Ali that the user's thumbs-up rating of either a category or a sub-category is modified by Ali's system such that the rating of a category is a function of the ratings of its subordinate sub-categories, as specifically taught and claimed by the applicants.

In the Advisory Action of 16 March, the Examiner acknowledges that "Ali does teach that the user assigns a rating to a category" (Advisory Action, page 2, lines 6-7), but asserts that because Ali subsequently uses these ratings in a predictive algorithm to determine an overall rating for a program, Ali teaches computing a rating of a category as a function of ratings of subordinate categories. The applicants respectfully disagree with this assertion.

As noted above, and as acknowledged by the Examiner, Ali uses category and sub-category ratings to determine a corresponding rating of a program. Ali does not teach using the sub-category ratings to determine a rating associated with a higher-level category. In the Advisory Action, the Examiner asserts that "the prior arts of record teach all of the claimed limitations" (Advisory Action, last line), but in neither the Final Office Action nor the Advisory Action has the Examiner identified where Ali teaches that a rating associated with a category is computed, nor where Ali teaches that such a computed category rating is based on ratings of its subordinate categories.

Because both Sciammarella and Ali fail to teach or suggest computing a rating of a category of a first level as a function of ratings of subordinate categories of a second level, as specifically claimed in claim 1, the applicants respectfully maintain that the Examiner has failed to establish a *prima facie* case to support the rejection of claims 1, 2, 6, and 13 under 35 U.S.C. 103(a) over Sciammarella and Ali, per MPEP 2142. Accordingly, the applicants respectfully request that this rejection be reversed by the Board.

Claims 7, 8, and 12

Claim 7, upon which claims 8-12 depend, claims an apparatus that includes user profile means that are adapted to compute a rating of a category of a first level as a function of ratings of subordinate categories of a second level.

The Examiner relies on the rejection of claim 1 to support the rejection of claim 7.

As noted above, neither Sciammarella nor Ali teaches or suggests computing a rating of a category of a first level as a function of ratings of subordinate categories of a second level. Therefore, the applicants respectfully maintain that the Examiner has failed to establish a *prima facie* case to support the rejection of claims 7, 8, and 12 under 35 U.S.C. 103(a) over Sciammarella and Ali, per MPEP 2142. Accordingly, the applicants respectfully request that this rejection be reversed by the Board.

Claims 14, 15, and 19

Claim 14, upon which claims 15-20 depend, claims an apparatus that includes a user profile module that is adapted to compute a rating of each of a plurality of categories of a first level as a function of ratings of plurality of categories of a respective second level.

The Examiner relies on the rejection of claim 1 to support the rejection of claim 14.

As noted above, neither Sciammarella nor Ali teaches or suggests computing a rating of each of a plurality of categories of a first level as a function of ratings of plurality of categories of a respective second level. Therefore, the applicants respectfully maintain that the Examiner has failed to establish a *prima facie* case to support the rejection of claims 14, 15, and 19 under 35 U.S.C. 103(a) over Sciammarella and Ali, per MPEP 2142. Accordingly, the applicants respectfully request that this rejection be reversed by the Board.

**Claims 3-5, 9-11, 16-18, and 20 stand rejected under
35 U.S.C. 103(a) over Sciammarella, Ali, and Lemmons**

Claims 3-5, 9-11, 16-18, and 20

In this rejection, the Examiner relies on Sciammarella and Ali for teaching each of the elements of independent claims 1, 7, and 14, upon which these rejected claims depend.

As noted above, the Examiner has failed to establish a *prima facie* case to support the rejection of claims 1, 7, or 14 under 35 U.S.C. 103(a) over Sciammarella and Ali. Accordingly, the applicants respectfully maintain that the rejection of claims 3-5, 9-11, 16-18, and 20 under 35 U.S.C. 103(a) over Sciammarella, Ali, and Lemmons that relies on Sciammarella and Ali for teaching the elements of claims 1, 7, and 14, is unfounded, per MPEP 2142, and should be reversed by the Board.

CONCLUSIONS

Because Sciammarella and Ali fail to teach computing a rating of a category of a first level as a function of ratings of subordinate categories of a second level, the applicant respectfully requests that the Examiner's rejection of claims 1-20 under 35 U.S.C. 103(a) be reversed by the Board, and the claims be allowed to pass to issue.

Respectfully submitted

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CLAIMS APPENDIX

1. A method of rating database objects, comprising:
 - categorizing the objects into a plurality of categories;
 - rating at least one of said categories based on user preferences;
 - arranging the categories in accordance with a multi-level category scheme with a first level of categories and a second level of categories subordinate to a respective category of the first level; and
 - computing a rating of a category of the first level as a function of ratings of subordinate categories of the second level.
2. A method as defined in claim 1, wherein the rating of the category of the first level is computed as the average of the ratings of subordinate categories of the second level.
3. A method as defined as defined in claim 1, wherein the method further comprises a step of visually representing a rating by means of a color.
4. A method as defined in claim 3, wherein a plurality of ratings is represented by means of a single color, a parameter of said color corresponding to a respective one of said plurality of ratings.
5. A method as defined in claim 4, wherein said parameter is the saturation of said color.
6. A method as defined in claim 1, wherein the objects are programs in an electronic program guide (EPG) database, and the categories of the first and second level are genres and sub-genres of said programs, respectively.

7. An apparatus for processing database objects, said objects being categorized into a plurality of categories, the apparatus comprising:

user profile means for rating at least one of said categories based on user preferences, wherein

the user profile means are further adapted to:

arrange said categories in accordance with a multi-level category scheme with a first level of categories and a second level of categories subordinate to a respective category of the first level, and

compute a rating of a category of the first level as a function of ratings of subordinate categories of the second level.

8. An apparatus as defined in claim 7, wherein the rating of the category of the first level is computed as the average of the ratings of subordinate categories of the second level.

9. An apparatus as defined in claim 7, wherein the apparatus further comprises a display screen and the user profile means are adapted to visually represent a rating by means of a color.

10. An apparatus as defined in claim 9, wherein a plurality of ratings is represented by means of a single color, a parameter of said color corresponding to a respective one of said plurality of ratings.

11. An apparatus as defined in claim 10, wherein said parameter is the saturation of said color.

12. A broadcast receiver as an apparatus as defined in claim 7, wherein said objects being programs in an electronic program guide (EPG) database, and the categories of the first and second level being genres and sub-genres of said programs, respectively.

13. A computer program product for performing, when executed on a programmable computing device, the steps of the method as defined in claim 1.

14. An apparatus, comprising:

- a central processing unit (CPU) adapted to process a plurality of database objects, wherein the objects are categorized into a plurality of categories;

- a user profile module adapted to rate at least one of the plurality of categories based on user preferences, wherein

- the user profile module is adapted to:

- arrange the plurality of categories in accordance with a multi-level category scheme with a first level of categories and a second level of categories subordinate to a respective category of the first level, and

- compute a rating of each of the plurality of categories of the first level as a function of ratings of plurality of categories of the respective second level.

15. An apparatus as recited in claim 14, wherein the rating of the first level of categories is an average of the ratings of respective plurality of categories of the second level.

16. An apparatus as recited in claim 15, wherein the apparatus further comprises a display screen and the user profile module is adapted to visually represent the ratings by colors.

17. An apparatus as recited in claim 16, wherein the first and the second levels of categories are displayed on the display screen.

18. An apparatus as recited in claim 17, wherein the display screen is adapted to display a connection indicator, which connects a category of one of the first level of categories to one of the second level of categories.

19. An apparatus as recited in claim 14, further comprising memory adapted to store user profile information.

20. An apparatus as recited in claim 16, further comprising an electronic program guide (EPG) module adapted to display programs on a screen, wherein the ratings of the plurality of second categories are included in the displayed programs.

EVIDENCE APPENDIX

No evidence has been submitted that is relied upon by the appellant in this appeal.

RELATED PROCEEDINGS APPENDIX

Appellant is not aware of any co-pending appeal or interference which will directly affect or be directly affected by or have any bearing on the Board's decision in the pending appeal.